

HIGH-SPEED STEEL FOR END MILL

Publication number: JP5163563

Publication date: 1993-06-29

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Applicant: NAT AEROSPACE LAB

Classification:

- international: *B23C5/10; C21D6/00; C22C38/00; C22C38/30; C23C8/22; B23C5/10; C21D6/00; C22C38/00; C22C38/30; C23C8/08; (IPC1-7): B23C5/10; C21D6/00; C22C38/00; C22C38/30; C23C8/22*

- European:

Application number: JP19910350506 19911211

Priority number(s): JP19910350506 19911211

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Abstract of JP5163563

PURPOSE: To obtain a high-speed steel for the end mill excellent in durable machinability with the surface hardness controlled to $\geq 900\text{HV}$ and the core hardness to $\geq 60\text{HRC}$.

CONSTITUTION: Carbon is infiltrated and diffused into the surface of a high-speed steel contg. 0.4-0.8 by weight of C, $\leq 1.0\%$ Si, $\leq 1.0\%$ Mn, 3.0-5.0% Cr, 5.0-10.0% Mo, 2.0-10.0% W, 2.5-4.0% V, 7.0-10.0% Co and the balance iron and inevitable impurities and fulfilling $W+2Mo=18$ to 22%. The steel is further hardened and tempered. Consequently, the steel has a carburized layer of at least 1mm thickness, and the surface hardness is controlled to $\geq 900\text{HV}$ and the core hardness to $\geq 60\text{HRC}$.

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